

Qualitative Survey Responses – CalPERS Environmental Initiative Update

Introduction

The following tables summarize investment managers’ responses to a survey regarding steps they have taken to improve energy efficiency, water efficiency, and waste management in their portfolios; tenant activities in these areas; organization-wide environmental initiatives; and future plans. Responses are summarized across each portfolio; therefore it should not be assumed that *all* properties in a manager’s portfolio took all of the steps described below, but rather that individual properties implemented many of the strategies described.

Core Investment Managers

Sector	Manager	In 2009, what steps have you taken to improve the energy efficiency of your properties?
Multifamily	BlackRock	<p>Environmental audits were performed at 45 of 65 communities in the portfolio through early 2009, though many properties were subsequently sold. Property teams have continued implementing many of the resulting recommendations, and other communities (which were not audited) have also taken steps to reduce energy use.</p> <p>Measures have included common area lighting retrofits to replace any remaining incandescent lights with CFLs, T12s with T8s, and metal halides with lower wattage lamps, and installation of motion or daylight sensors. In apartment units, incandescent lighting is being replaced with CFLs during turns or when lamps burn out. Several “Model Minder” devices were installed to regulate energy consumption in model apartment units. ENERGY STAR appliances are installed in new developments, renovations, and upon replacement of appliances in existing properties. Four properties installed additional attic insulation at no cost by leveraging government and utility rebates.</p> <p>No- and low-cost operational measures are continued from previous years, including lowering pool and water heater temperatures. Resident newsletters include reminders about energy conservation, and management teams follow up with the maintenance and housekeeping staff to ensure lights are turned off and the thermostat is set back in vacant suites.</p>
Multifamily	GID Investment Advisers	GID Investment Advisers continued replacing HVAC and water heating systems and components with more energy efficient models.
Industrial	LaSalle	<p>LaSalle continued to perform cost/benefit analyses of retrofitting existing buildings with energy efficient products, and strives to earn ENERGY STAR ratings for individual properties. They invested in energy-efficient building improvements such as T5 fluorescent fixtures, insulated dock doors, and 80/20 air pressurization units (which reduce heat leakage). ENERGY STAR qualified “cool roof” coatings and materials were applied at many properties, and exterior paints are typically white, reducing cooling needs. Motion sensors, photocells, and timers were installed to control common area lighting. HVAC systems are upgraded to higher efficiency units (e.g., ENERGY STAR qualified HVAC units) as replacements are required, including HVAC upgrades at CenterPoint’s headquarters in 2009. Contracts and management procedures are in place for preventive maintenance for the majority of HVAC units in service.</p> <p>In the development portfolio, LaSalle has used white TPO roofs and white metal roof decks; high bay windows, skylights, white-painted interior walls, and a North/South direction to enhance natural light; high-efficiency T5 lights; increased insulation; and multiple small chillers, rather than one large chiller, enabling staging and sequencing to reduce energy use.</p>
Industrial	RREEF	In tenant improvement projects at Rivergate Industrial and WestPark, RREEF installed high-efficiency lighting, HVAC equipment, and motion sensors. Programmable thermostats were installed to control energy use at 2390 Zanker.

Office	CommonWealth Partners	At Bishop Square, lighting retrofits, motion sensor installations, and HVAC recommissioning initiatives were continued. New CO sensors were installed on garage ventilation fans. At 2250 Lakeside Centre, chillers were replaced.
Office	Hines	Hines continued to implement no- and low-cost energy improvement measures including running systems more efficiently and changing temperature set points. All eligible assets are ENERGY STAR labeled except one, which Hines expects to certify in 2010.
Retail	First Washington	Cool roofs are installed during roof replacement projects, when utility rebates and incentives are available. 775 watt pulse-start fixtures are used to replace 1000 watt fixtures in parking lot lighting during retrofits or major upgrades. JV partner Equity One is commencing a pilot project to install an energy management/lighting control system for common area lighting, and is looking into engaging a company to audit energy use and greenhouse gas emissions.
Retail	Miller Capital	<p>Property teams retrofitted common areas with lighting controls and lower wattage fixtures, eliminated unnecessary lighting, converted decorative tree lights to LED lamps, replaced HVAC components, and reduced temperature set points.</p> <p>Operating schedules for lighting, HVAC, and fountains are frequently monitored through energy management systems and staff observations, and schedules were reduced in many cases. Energy use in vacant spaces and management offices is closely monitored. Staff assists and educates tenants on energy-efficient operations, for example by encouraging tenants to implement preventative maintenance programs for HVAC units and by assisting them with lighting control operations.</p> <p>During a 2009 redevelopment, La Palmera enhanced building automation controls, installed energy recovery ventilation systems, added variable speed drives to HVAC systems, and performed lighting retrofits. Woodfield Mall completed a replacement of eight common area HVAC units with models that provide a 25% decrease in energy consumption; the upgrade also included an advanced control package.</p>
Sector	Manager	What impact have these steps had on energy consumption?
Multifamily	BlackRock	<p>A “same store” sample of 24 properties that were stabilized for all of 2008 and 2009 shows electricity savings of 3.8% over these two years. Individual properties also reported significant savings: Renaissance Tower’s low-cost common area renovations resulted in savings of 12% (135,000 kWh) annually. Many Southern California properties took advantage of lighting rebate programs, resulting in electricity savings of 4.2% (300,000 kWh) annually.</p> <p>The “same store” comparison also shows natural gas savings of 5.4%. A majority of this savings, 2.6 million Btu, is from Legends at River Oaks’ upgraded attic insulation. The property added insulation at no cost through rebate programs and was also diligent in reducing energy consumption in vacant units.</p>
Multifamily	GID Investment Advisers	Using energy-efficient hot water and HVAC systems is expected to reduce electricity consumption by approximately 25%.
Industrial	LaSalle	<p>LaSalle reported reduced energy use and costs, as well as increased awareness of energy efficiency. However, providing exact energy data is challenging due to the NNN structure of industrial leases, where tenants pay bills directly to the utility companies. LaSalle tracks all invoices where the landlord is responsible for the utility bills.</p> <p>Qualitative results reported include creation of positive pressure in warehouses, reducing heating and cooling costs; reduced solar heat gain from new roofing products; reduced energy costs from motion sensors in office and warehouses; creation of more natural light, reducing the need for electricity; increased useful life of equipment before repair or replacement; and a greater focus and education on renewable energy sources.</p>
Industrial	RREEF	RREEF expects that tenants will see utility bill savings due to lighting upgrades.

Office	CommonWealth Partners	Bishop Square lowered energy consumption by 1% over the previous year. At Lakeside Centre, when comparing August-December 2008 energy consumption to August-December 2009, there was a reduction of 163,993 kWh, and overall electricity cost savings of \$121,891 (partially due to the renegotiation of the electricity contract to a lower rate).
Office	Hines	Most property teams reported a meaningful decrease in energy consumption. All properties maintained or improved their ENERGY STAR scores from the prior year. 560 Mission won the BOMA Earth Award and is LEED EB: O&M Platinum certified.
Retail	First Washington	Cedar Park's past exterior lighting retrofits have reduced lighting electricity consumption by 30-40%.
Retail	Miller Capital	Individual properties reported energy reductions in 2009 compared with 2008: The Mall at Rockingham Park reported lighting retrofits and operational efficiencies saved over 1 million kWh (\$376,000). Market Street reduced electricity consumption by 14%. Mount Pleasant Towne Centre reduced electricity consumption by approximately 10%. The Shops at Sunset Place saved \$103,865 (944,227 kWh). The Westchester reported an electricity decrease of 10.2% (1,407,536 kWh). Oakbrook Center anticipates a savings of 133,936 annual kWh due to upgrades performed in 2009. Reductions at Biltmore Fashion Park were over 195,000 kWh. Reductions at Kierland Commons were approximately 66,000 kWh. Reductions at the Village at Corte Madera were over 21,500 kWh. In 2009 the Macerich Strategic Energy Program was implemented at Scottsdale Fashion Square (including an investment of \$1.7 million in lighting, mechanical and control improvements) with expected energy cost savings of over \$440,000 annually. Jefferson Pointe Shopping Center reported fewer equipment breakdowns and emergency repairs due to increased operational and maintenance activities.
Sector	Manager	In 2009, what steps have you taken to reduce water consumption in your properties?
Multifamily	BlackRock	Property teams have installed metered and/or motion-activated faucets in common area bathrooms, drip irrigation systems, and irrigation systems with weather sensors; and have reduced watering times for sprinkler systems. Some properties sent quarterly letters to residents to educate them on water conservation and reporting leaks. At some properties, residents are billed for actual water consumption, which helps reduce usage. In new developments or upon replacement, low-flow fixtures are used. In the development portfolio, efforts include the use of drought-resistant plants, plumbing valves to reduce consumption to 50 psi, sinks with low-flow aerators, weather-regulated irrigation systems, and ENERGY STAR qualified dishwashers and washing machines.
Multifamily	GID Investment Advisers	Property teams continued to check operation of rain sensors and irrigation clocks, repair irrigation system leaks, and install misters on sprinkler heads. The landscaping company performs monthly checks of irrigation systems to adjust schedules and reduce watering times.
Industrial	LaSalle	At existing properties, property teams utilized rain sensing irrigation systems, mulched around shrubs and beds to hold moisture, and adjusted irrigation systems to optimize efficiency. For developments and redevelopment projects, teams installed low-flow plumbing fixtures and metered faucets, and used low-water ground cover and absorbent soil mixtures. Native, drought-resistant plants are used when possible.
Industrial	RREEF	In two separate tenant improvements at Rivergate Industrial, RREEF installed low-flow toilets and motion-activated faucets. San Jose Industrial upgraded irrigation timers. WestPark installed low-flush toilets.
Office	CommonWealth Partners	Property teams made seasonal adjustments to irrigation systems, utilized low-flow and automatic restroom fixtures, and closely monitored cooling tower makeup water.

Office	Hines	Several properties are installing low-flow fixtures. Some are reducing the amount of water used to irrigate landscaping.
Retail	First Washington	Cedar Park works with tenants on monitoring their water bills, replacing their fixtures with low-flow devices, and being aware of running water and leaks. Management also provides a service to tenants in which they liaise with the local water provider on any water use problems tenants may have. Landscaping is not irrigated. During major landscape renovations, Equity One evaluates opportunities to reduce turf area, install xeriscaping, and retrofit with low-flow/drip irrigation systems.
Retail	Miller Capital	Property teams report continuing to adjust and reduce landscape irrigation watering when practical. They also continued to routinely check vacant and tenant spaces, restrooms, and kitchens for leaking pipes or toilets. Several properties reduced fountain operational hours and draining/cleaning frequency. La Palmera implemented a requirement for low-flow fixtures to be installed in tenant spaces as each space is rebuilt. The Mall at Rockingham Park implemented a procedure to inspect all tenant units twice a year for water leaks.
Sector	Manager	What impact have these steps had on water consumption?
Multifamily	BlackRock	A “same store” sampling of 24 properties shows water savings of 3.4% from 2008 to 2009. Legacy on the Lake reported 27% water savings annually compared to the LEED baseline. Further, resident education has resulted in greater awareness – many residents now contact property management when they see leaks or standing water.
Office	CommonWealth Partners	Bishop Square lowered water consumption by 3% over the previous year.
Office	Hines	Several individual projects report significant reductions in water consumption.
Retail	Miller Capital	Westchester reduced its water consumption by 16% in 2009; the Mall at Rockingham Park by 12.1%; and Mount Pleasant Towne Centre by 6.14%. Oakbrook Center reports varying water savings of 1-7% for its buildings. At the Meridian, water consumption was reduced by 4.5%. At Market Street, water reduction efforts successfully offset rate increases to provide stable costs.
Sector	Manager	In 2009, what steps have you taken to improve waste management in your properties?
Multifamily	BlackRock	Property teams have implemented many of the resulting recommendations from the environmental audits, including the following: expanding recycling programs, implementing new recycling programs as local services become available, and promoting these programs to residents. Property teams have also separated large waste to reduce the number of hauls, installed trash compactors when possible, and implemented procedures to properly dispose of hazardous waste.
Multifamily	GID Investment Advisers	All remaining communities added recycling programs for batteries, fluorescent bulbs, and ballasts, as well as paper recycling in the leasing offices, wherever these programs were not already in place. Management teams further reduced paper waste by using electronic rather than printed documents. At one property, GID replaced trim around 105 patio doors with a product made from recycled and reclaimed plastic and wood. A single-stream recycling dumpster was added at another property.
Industrial	LaSalle	Where waste management is the landlord’s responsibility, LaSalle continues to implement recycling programs. In the CalEast Air Cargo portfolio, managers implemented recycling programs in concert with airport-sponsored initiatives. Contractors are encouraged to recycle lamps/ballasts and metal waste. CenterPoint recycled 90% of the waste from a building that was demolished. LaSalle also tries to limit disposal of roof materials by using overlays or partial tear-offs when possible.

Industrial	RREEF	Recycling dumpsters were added at WestPark. At other properties, RREEF is not responsible for waste management.
Office	CommonWealth Partners	Property teams maintained existing recycling programs, educated tenants about recycling and waste management, and provided opportunities for tenants to recycle electronic waste (e.g., computers and printers). Bishop Square's separated wet and dry waste is converted into electrical energy through a local waste-to-energy plant, HPower.
Office	Hines	All properties in the portfolio have a recycling program in place. Most properties intensified their tenant education efforts related to waste management through the HinesGO program.
Retail	First Washington	At Cedar Park, cardboard recycling dumpsters are maintained, restaurant tenants must provide cooking grease recycling containers, grease trap inspections are performed to avoid grease flow into sewer systems, and the lighting contractor recycles used lighting systems. Equity One had previously completed a full waste audit of all properties in the portfolio, and a recycling program was tailored and implemented for each site.
Retail	Miller Capital	Recycling programs are in place or in the process of being implemented, with effective tenant and management participation accompanied by tenant education programs. To varying degrees, recycled materials include cardboard, plastic, metals, glass, lamps, ballasts, toner, and ink cartridges. Malls also reported monitoring the tons/pull ratio and reducing the number of waste hauls per month when possible. The Mall at Rockingham Park worked with tenants to educate them about proper disposal of waste, providing tenants with details about the regional lamp recycling program. A new recycling program was launched at Oakbrook Center. Westchester implemented plastic bag recycling.
Sector	Manager	What impact have these steps had on waste volumes?
Multifamily	BlackRock	Trash hauls have been reduced at several communities. Additionally, Avalon Del Ray reported eliminating recycling expenses of \$700 per month by participating in the free City of Los Angeles recycling program.
Multifamily	GID Investment Advisers	Using the recycled-content trim reduces landfill waste. Adding the recycling dumpster and hazardous waste recycling programs has been successful in reducing waste volumes and landfill contamination.
Industrial	LaSalle	Due to using recycled materials in new developments and recycling demolition waste, there have been cost savings and a reduced volume of materials sent to landfills. Contractors have increasingly used "green" products.
Office	CommonWealth Partners	Lakeside Centre disposed of 66 tons of recyclable materials.
Office	Hines	Property teams reported the impact of their waste reduction efforts using different means. Several quantified the amount of waste recycled: Harris Bank - 210 tons; 301 Congress - 70 tons; Washington Square - 69 tons; Wellesley Gateway - 43 tons. Two reported a percentage of waste diverted from landfill disposal: 560 Mission - 75%; Cottonwood - 50%. 650 Page Mill Road reported that waste tonnage was reduced by 30% compared with the prior year.
Retail	First Washington	Cedar Park's cardboard recycling program reduces the amount of waste going to landfills. Across the portfolio of eight centers owned in joint ventures with Equity One, waste stream efforts have increased recycling volumes by over 5,446 cubic yards (an increase of 27%). This is anticipated to grow further as additional properties are included in the program.

Retail	Miller Capital	Property teams reported various results: Market Street is the number-one recycler in its community, recycling 26,000 pounds of material in 2009. The Mall at Rockingham Park saved 15% of trash costs in 2009 compared with 2008, assisted by a greater focus on accuracy and monitoring of compactor readings. The Shops at Sunset Place reduced waste hauls by 26 total pulls. Oakbrook Center now diverts nearly 20% of total waste to recycling centers (453 tons of recyclable materials in 2009). The Meridian now receives waste removal credits for cardboard recycling. Biltmore Fashion Park improved its recycling program for an overall increase in percentage of waste recycled.
Sector	Manager	Are you aware of any steps that your tenants have taken to improve their energy/water efficiency and reduce their waste stream?
Multifamily	BlackRock	Some residents are replacing light bulbs with CFLs, as well as turning off lights and setting back thermostats when they are not at home.
Multifamily	GID Investment Advisers	Tenants close apartment blinds to keep direct sunlight out so apartments remain cool; keep thermostats higher during warm temperatures when they are not in their apartments to reduce air conditioning needs; use reusable canvas shopping bags; and in sub-metered apartments, promptly call property management when there is a water leak.
Industrial	LaSalle	<p>The importance of energy efficiency and reducing utility costs was evidenced by several tenants making significant lighting and fixture upgrades. One of LaSalle's larger tenants, Federal Signal, installed T8 lights with motion sensors and has implemented a comprehensive waste management program, including contracts with recycling agents for materials such as scrap metal, pallets, office furniture, machine parts, wood, electronics, liquid waste, and more. A data center tenant is currently upgrading its HVAC system. DHL and Inventory Liquidators updated their lighting to T5 fixtures. Another large tenant, Excel, installed low-flow fixtures.</p> <p>The Union Pacific's "green" intermodal in Joliet will include liquid natural gas hostlers to move trailers, and electric cranes that greatly reduce emissions and noise pollution compared to typical diesel cranes. Union Pacific will also install efficient lighting and utilize downlighting techniques to minimize light pollution.</p> <p>Additionally, LaSalle has assisted many tenants to install balers for recycling cardboard.</p>
Industrial	RREEF	At San Jose Industrial, tenants consulted with an outside energy management company to discuss how they can leverage rebates and reduce energy costs. If San Jose Industrial tenants are replacing HVAC units, they are requested to install high-efficiency units and are referred to the utility representative to determine what rebates or programs are available to them.
Office	CommonWealth Partners	Several tenants have registered for and/or obtained LEED certification and Hawaii Green Business Awards. Tenants participate fully in the buildings' recycling programs.
Office	Hines	Steps taken by tenants include participating in HinesGO (a voluntary initiative to measure and reward green efforts in each tenant's leased space), educating employees on sustainability, creating recycling stations, decreasing disposable plastics used in cafeterias, purchasing recycled-content products, installing motion sensors, and performing trash audits.
Retail	First Washington	Tenants are contributing to efforts to reduce the solid waste stream and increase recycling.
Retail	Miller Capital	Tenant efforts include recycling cardboard, using energy-efficient light bulbs, and converting toilets to low-flow units (at Woodfield Mall this is a requirement for all construction and remodel projects). Several retailers have reduced their waste stream by baling cardboard and paper for recycling or implementing expanded recycling programs within their stores. Some tenants are switching from freight packaging to reusable crates to reduce paper and plastic use. At the Meridian, tenants are beginning to follow the mall's lighting retrofits.

Sector	Manager	Does your company have any portfolio-wide environmental initiatives, programs, or policies in place?
Multifamily	BlackRock	BlackRock utilized a consultant to audit 45 of 65 properties in the portfolio through early 2009; some of the audited properties have subsequently been sold. Audit reports detailed prior work to the property; utility consumption; and recommendations for saving energy, water, and waste. A tracking sheet is used by asset management teams to monitor progress on a quarterly basis and communicate with property management. Additional audits are completed on new acquisitions or developments. Along with the property-level audits, the portfolio has implemented cost-effective upgrades within apartment homes. Some properties have been successful in using these upgrades to attract new tenants or increase renewals. This has been especially important at properties with high utility costs.
Multifamily	GID Investment Advisers	GID installs energy control devices such as motion sensors and EMS's whenever possible, retrofits lighting, implements recycling programs, and implements efficiency and maintenance procedures for HVAC equipment. As properties are acquired, GID conducts an internal energy audit to investigate ways in which the property can be operated more efficiently. They install recycling programs at all properties where they are not already in place. At all but two properties in the portfolio, apartment homes are sub-metered for water consumption, promoting conservation.
Industrial	LaSalle	<p>In 2007, LaSalle established a sustainability board with representation from senior leadership. The board has worked to develop and implement coordinated, globally consistent sustainability and energy management policies and practices. Goals include reducing the environmental impact of business operations and clients' properties while protecting investment performance; delivering the best client solutions for sustainability; and driving thought leadership in sustainable property investments.</p> <p>Initiatives include: (a) <i>Feasibility studies to determine the potential for LEED EB: O&M certification</i>. To date, LaSalle has completed studies on 39 office and medical office buildings totaling over 8.4 million square feet. (b) <i>LEED EB: O&M certification for eligible assets</i>. Two properties have been certified to date, with 14 more in process. (c) <i>ENERGY STAR certification for eligible properties</i>. To date, 16 office assets received the ENERGY STAR label, with several dozen more in the queue for 2009 and 2010. (d) <i>Sustainability benchmarking</i>. In 2009 LaSalle launched a pilot program for sustainability benchmarking of an entire portfolio using a Web-based tool. Office, industrial, retail, and multifamily properties were reviewed and scored in the areas of energy, water, waste, and carbon footprint. This will allow asset and portfolio managers to view performance in the context of a larger portfolio, identify under-performers and strong performers, and set targets for improvement. (e) <i>Sustainable Operations "Toolkit" for asset and property managers</i>. The toolkit identifies energy and sustainability best practices in ten areas; provides operations guidance to property managers; and promotes optimal building performance, reduced operational expenses, and enhanced asset value. (f) <i>Energy saving initiatives</i>. LaSalle is focused on identifying specific, actionable energy-saving opportunities that have low or no capital costs and short economic paybacks. Properties have seen immediate benefits from re-calibration of energy management systems, installation of VFDs, replacement of inefficient restroom fixtures, lighting upgrades, and motion sensors. (g) <i>Client strategic plans</i>. LaSalle reports on sustainability efforts as a component of annual client strategic plan reporting requirements. (h) <i>LEED NC development</i>. LaSalle seeks to implement LEED standards where possible for new developments. Approved LEED NC development projects to date include 2.6 MSF of industrial developments in the U.S.</p>

Industrial	RREEF	<p>As a member of Deutsche Bank Group (DB), RREEF is committed to the corporate targets set out by DB to achieve the company's overall Environmental and Social Governance ("ESG") goals. Among other items, DB is committed to reducing its CO2 emissions by 20% annually, so that its global business activities are climate neutral by 2013. This reduction program is based on increasing energy efficiency and reducing consumption, realigning buildings and IT services to suit an infrastructure with lower CO2 emissions, using renewable energy, and compensating for CO2 emissions through certificates.</p> <p>In 2009, RREEF developed a five-point sustainability plan including (a) ENERGY STAR benchmarking for all eligible office properties; (b) LEED EB: O&M screening and pursuit of certification for selected properties; (c) a comprehensive green building program including procedures for green cleaning, HVAC operations, Integrated Pest Management, green construction, purchasing and waste management programs; (d) an initiative to identify energy-saving lighting and re-lamping opportunities through local utility company rebate programs; and (e) pursuit of the goals of the BOMA 7-Point Challenge. During the first quarter 2010, RREEF established a Global Sustainability Council with executive-level leadership.</p> <p>Other specific examples of how RREEF has recently contributed to DB's ESG objectives include the following: a stringent policy on reducing air travel; recycling and re-use program for office furniture; take-back programs with suppliers, initially focusing on office, computer, and telephone equipment; expansion of a waste reduction program for food and beverage packaging and containers; expansion of toner recycling; use of locally-sourced, seasonal produce for staff restaurants; active participation in ENERGY STAR; membership in the USGBC; implementation of the "Green Matters" tenant communication program; and founding membership in the Greenprint Foundation.</p>
Office	CommonWealth Partners	CommonWealth Partners benchmarks properties' energy performance using ENERGY STAR, performs annual indoor air quality testing, and continually reviews and maintains/upgrades building systems.
Office	Hines	<p>The "Hines Green Office" program (HinesGO), rolled out in 2008 and 2009, is a voluntary program to measure and reward sustainability within the Hines tenant base worldwide (including Hines offices), utilizing a scorecard that complements the LEED EB: O&M rating system. HinesGO encourages tenants to look at low- and no-cost ways to make more environmentally friendly choices. It has been approved by USGBC to count as a LEED Innovation & Design credit.</p> <p>Hines utilizes analytic tools such as chiller efficiency testing and power consumption monitors to constantly measure each building's current performance versus previous years. These programs are used consistently across the firm. When economically practical, each Hines building has the goal of reaching ENERGY STAR certification, and all buildings will be working to make progress toward some level of LEED certification.</p>
Retail	First Washington	<p>Each property is evaluated during planned building improvements to determine what types of improvements will have the greatest impact on efficiency. As a shopping center is renovated, common area lights are retrofitted with more efficient lighting systems, including timers and photocells. As existing equipment needs replacement, the following may be installed: increased roof insulation, reflective flashings/membranes, ENERGY STAR qualified rooftop HVAC units using CFC-free refrigerant, and drip irrigation systems. Cardboard recycling dumpsters are maintained at all sites.</p> <p>JV partner Equity One has a Sustainability and Social Responsibility Council to develop and initiate policy changes and environmental programs related to its communities, real estate, and corporate functions.</p>

Retail	Miller Capital	Miller's JV partners reported various initiatives: General Growth has a goal of reducing company water and kWh consumption by 5% annually, and reported recycling approximately 275,000 pounds of fixtures and tenant construction company-wide in 2009, particularly through donations to Habitat for Humanity. Macerich continued implementing its five-year sustainability plan and property Strategic Energy Plans, completing Phase 1 properties in 2009 and receiving approval from senior management to move forward with implementation in 2010; their energy reduction initiatives resulted in a portfolio-wide reduction of over 70 million kWh. Trademark Property Company focused on pursuing LEED certification for new projects, and existing projects were challenged to create their own environmental initiatives and evaluate their success; positive outcomes will be shared with the group and implemented where applicable. Other JV partners reported property-level policies for green cleaning (based on LEED guidelines), operations manuals, regular maintenance, and continual lighting and HVAC upgrades.
Sector	Manager	What steps do you plan on taking in 2010 to improve energy efficiency, water efficiency, and waste management in your properties?
Multifamily	BlackRock	<p>BlackRock will continue to track to implementation of audit recommendations, replace lighting and appliances with efficient models as they expire, install low-flow plumbing fixtures, and educate team members and residents on the importance of conservation.</p> <p>Several larger projects have been budgeted for the upcoming year (e.g., obtaining bids for lighting retrofits at 11 properties to replace common area fixtures with fluorescent and high-efficiency induction and LED alternatives). Additional projects may be considered as government or utility rebates make them economically viable, such as installing photovoltaic systems.</p> <p>A high-tech boiler regulation system, which tracks ongoing consumption and makes adjustments to improve efficiency, was installed at 13 properties with central boiler units in January 2010. Initial savings have ranged from 9% to almost 30%.</p>
Multifamily	GID Investment Advisers	<p>Property teams will continue purchasing environmentally friendly carpet made from recycled materials; recycling old carpets; installing drought-resistant and indigenous plants that do not require as much watering; educating property managers and residents about the positive impacts of energy, waste, and water conservation; and including educational literature in move-in packages. Further, GID is currently researching green cleaning products.</p> <p>Individual properties' plans include the following: replace existing garage lighting fixtures with energy efficient lamps at a total cost of \$23,000 with expected annual savings of \$18,000; decrease heating and raise cooling set points by five degrees in common areas; replace pool motors with more efficient models; replace pool lights with LED lamps that have a 50,000 hour lifespan and consume less than half of the electricity of the current 500 watt bulbs; continue replacing hot water and HVAC systems and components with more efficient models as needed; and replace incandescent exterior lighting with fluorescent fixtures and lamps.</p>

Industrial	LaSalle	<p>Asset and portfolio managers will continue to educate their teams through the Sustainable Operations Toolkit, and are working with those teams to ensure ongoing, continuous improvements that increase operational efficiencies and reduce costs, while reducing environmental impact. LaSalle will continue to review opportunities to reduce grassy areas to eliminate irrigation and landscape maintenance requirements. Contractors will be required to include recycling considerations in bids.</p> <p>Within the Centerpoint portfolio, LaSalle plans to commence construction of a 1.5 million SF campus for the GSA, designed and constructed to LEED Gold standards. Highlights include cool roofing, alternative transportation components, wastewater and stormwater reuse, ultra-low-flow urinals, low-flow aerators, green power, 75% diversion of construction waste, regional materials, low-emitting materials, high-efficiency air filtration media, green cleaning and landscape maintenance, and green building educational components.</p> <p>A group of assets managed by Colliers Turley Martin Tucker (CTMT) will be benchmarked using ENERGY STAR Portfolio Manager, and the results will be used to identify and prioritize improvements at all 12 properties. CTMT will also research adding a recycling dumpster in the park and installing motion sensor light switches in full-service tenant spaces. CalEast will continue to encourage tenants to improve energy efficiency, water efficiency, and waste management at all locations, with property managers addressing these issues at semi-annual property inspections.</p> <p>For the Union Pacific's "green" intermodal in Joliet, a study is in process for CIC Joliet to evaluate the feasibility of wind energy production. Preferred parking for carpool and vanpools is planned. Management is also evaluating a road-based distributive power generator to utilize the untapped power of vehicle traffic to create energy.</p>
Industrial	RREEF	All of the RREEF properties in this survey have been transitioned to third-party property management firms, with whom RREEF has been working closely to ensure adoption of the RREEF five-point sustainability program. Both current property management firms will continue to provide quarterly progress reports on sustainability efforts.
Office	CommonWealth Partners	Bishop Square plans to retrofit with 0.8 gpf urinals (replacing 1.0 gpf), 1.0 gpf commodes (replacing 1.4 gpf), 85 watt induction lights in the parking garage (replacing existing 175 watt metal halides), and 25 watt super-T8 lamps in office areas (replacing 32 watt T8s). When the land asset is eventually developed, the buildings will be designed to LEED Gold standards at a minimum.
Office	Hines	All property teams continue to search for ways to reduce resource consumption. Several property teams will continue to install low-flow fixtures, retrofit lighting, and upgrade systems and controls.
Retail	First Washington	Property teams will continue inspecting and repairing common area lighting systems, timers, and controls; monitoring common area invoices for spikes in energy consumption; working with tenants on reducing energy consumption and operational costs; and developing processes to benchmark properties and identify areas for sustainability improvements. Cool roofs will be installed for future roof replacements. As energy/water efficiency measures are implemented, tenants will be educated to maximize their contributions going forward. Airpark Plaza, Shoppes at Quail Roost, and Concord Shopping Center will be re-painted using low-VOC paint.

Retail	Miller Capital	<p>Property teams will continue to research and install energy-efficient lighting and other equipment as items need replacing, educate staff to conserve energy and water, improve and enhance recycling efforts, and switch to electronic ballasts as ballasts are replaced. Macerich properties will implement a "smart irrigation" pilot program, continue implementation of the Strategic Energy Program, maintain energy-saving efforts, and roll out new programs focused on increased recycling and water conservation.</p> <p>La Palmera launched a mall-wide recycling program in January 2010; the program has been discussed in tenant meetings and newsletters. The property's renovation should be complete in mid-2010, at which point it will be able to fully utilize enhanced automation controls and other energy-efficient features. LEED certification is in process.</p> <p>Jefferson Pointe Shopping Center is investigating a number of initiatives including lighting retrofits, recycling, irrigation controls, and rainwater retention.</p> <p>Market Street is scheduled for a complete retrofit of all parking garage lighting, converting from metal halide to fluorescent bulbs with the assistance of a rebate from the electric utility. In addition, Market Street will implement a tenant education program promoting awareness and participation in conservation efforts. The Meridian also plans to retrofit garage lighting.</p>
Sector	Manager	Do you have any additional comments, suggestions, concerns, or questions about the CalPERS environmental initiative?
Multifamily	BlackRock	<p>Three new developments completed in 2009 achieved green building certifications (from LEED and/or local jurisdictions' green building programs).</p> <p>In addition to energy, water, and waste reduction, other green measures undertaken in the portfolio included using sustainable materials for common area improvements.</p>
Multifamily	GID Investment Advisers	In addition to energy, water, and waste reduction, other sustainable measures undertaken in the portfolio included utilizing green cleaning products and materials.
Industrial	LaSalle	<p>LaSalle is committed to initiatives that demonstrate social responsibility and benefit the environment. Only a small portion of the industrial portfolio contains common utility meters, usually representing exterior lights or a small lobby area; utility consumption for these spaces has been provided. To benchmark performance better, LaSalle has performed a pilot program on a separate account client's portfolio using the Web-based Green Globes assessment. The sample portfolio contained eleven assets, including office, retail, multifamily and industrial assets. Each asset was scored in six areas (energy, water, waste, emissions, IAQ, and environmental management) and given an overall score. The assessment program provides a cost-effective way to benchmark current performance and set goals to improve. Some of the better-performing assets will be certified under GBI's rating system. This program may be of interest to CalPERS in their efforts to improve sustainable performance in real estate holdings.</p> <p>In addition to energy, water, and waste reduction, other green measures undertaken in the portfolio include the following: Mowing of landscaping at vacant properties was reduced, saving fuel and emissions. Development sites were designed to minimize runoff and reduce the size of the required retention facilities. Janitorial services in the Kansas City and Houston markets use green cleaning products.</p>
Industrial	RREEF	Pioneer 161 is the first LEED Silver industrial building in Texas. The Monroe and Pioneer 161 properties are NNN leased where the tenants pay all utilities; therefore in reference to other sustainability measures, there is nothing to report at this time.
Office	Hines	All Hines properties have had their potential for LEED EB: O&M certification evaluated and 4 of the 9 properties are in the implementation phase or have received certification.
Retail	First Washington	Maintaining communications with tenants and inspecting their leased spaces on a regular basis keeps management aware of any increases or problems with utility consumption. In many cases the landlord/manager of retail or office space does not have access to tenants' utility bills, so this type of interaction can reduce energy, save money, and add to tenants' bottom lines.

Non-Core Investment Managers

Manager	In 2009, what steps have you taken to improve the energy efficiency of your properties?
Buchanan	<p>Property teams generally replace appliances and windows with higher-efficiency models and encourage staff to operate buildings efficiently, with an eye on resource conservation and operating cost reduction.</p> <p>At multifamily communities in the portfolio, motion sensors were installed in model units, power to vacant apartments was turned off at the breaker, vacant unit refrigerators were set at the lowest setting, and common area lights were retrofitted with energy-efficient lamps. Teams perform preventative maintenance such as HVAC filter replacement and weekly exterior light checks, and replaces HVAC units with higher SEER models when replacements are required. Teams also adjust central boiler temperatures depending on outside air temperatures to save energy.</p> <p>Office buildings in the portfolio installed new building automation systems, an energy recovery ventilation unit, and VFDs on domestic water pumps; eliminated automatic Saturday HVAC, and closely monitored EMS schedules.</p> <p>At industrial properties, exterior lighting is sensor-activated; as part of lease negotiations or renewals, HVAC replacements are required to be energy-efficient units; and tenant improvements include energy-efficient fixtures, motion sensors, and windows/sidelights for maximum natural light. All full-service buildings have EMS systems to control HVAC and lighting use. Some lighting retrofits were performed in common areas. Tenants are educated with regards to energy conservation.</p>
BUILD	<p>At the portfolio's two multifamily rental properties, management provided new residents a list of environmentally-friendly products and energy-efficient practices upon move-in; installed energy-efficient lighting; installed dimmer switches in common areas and motion sensors in model apartments, common area restrooms, fitness center, laundry rooms, and outdoor lights; changed HVAC filters regularly; and ensured office lights were turned off at night. Apartments utilize programmable thermostats and energy-efficient appliances.</p> <p>At the portfolio's six developments, the team oriented buildings for daylight exposure, installed ENERGY STAR appliances, developed a training manual on green features for residents, installed motion sensors and photocells on exterior lights, installed fluorescent lights in model homes, and adjusted thermostats' range to minimize the amount of conditioned air provided.</p>
CalSmart (RREEF)	<p>At Research Center, a tenant improvement incorporated high-efficiency HVAC units and lighting controls, as well as a wattage reduction for warehouse lighting. At Summit IV, an energy consultant performed an analysis to confirm the property is functioning above industry standards in terms of energy efficiency and sustainable practices; an automation system controls after-hours lighting and HVAC based on occupancy at 2-hour intervals. China Basin continued a phased retrofit of common and tenant areas with higher-efficiency lighting and maintained operational initiatives to reduce energy use. The property also participated in a load-shedding program to reduce peak power demand.</p> <p>Programmable thermostats were added to the model units and clubhouse at Citigate Apartments. The property also began replacing high pressure sodium breezeway bulbs with fluorescent bulbs. Citigate Apartments receives monthly reports from Conservice, a third-party utility billing company, notifying management of higher-than-anticipated consumption of water and electricity for both vacant and occupied apartments. If there are spikes in consumption, maintenance staff inspects the property for any necessary water or electrical repairs.</p>

CityView America / Pacific City Home	<p>Developments met or exceeded California Title 24 code requirements, ensuring initial energy consumption that is lower than the national standard. Tennessee Lofts is being built to exceed current Title 24 regulations by 15% in order to qualify for the California Green Builder Program, utilizing energy-efficient lighting and equipment as well as low-E windows and a “cool roof.”</p> <p>At Vinings on the Chattahoochee, residents are offered an optional green package with higher-efficiency equipment as well as services such as blower door and window testing and thermal bypass inspections. New homes built at Pineae Village 227 are ENERGY STAR certified. Various project teams installed some of the following items: ENERGY STAR windows, water heaters, appliances, and bathroom fans; recirculation lines on water heaters; additional insulation; dual-pane insulating windows; high-efficiency tankless water heaters; gearless elevators; lighting motion sensors and dimmers; CFLs; and thermally-efficient doors.</p> <p>Operational improvements at existing properties included the following: using thermal covers on spas, turning off pool heaters during warmer months, cutting power to vacant units, turning water heater temperatures down to 120 degrees, reducing common area HVAC use, and educating residents to set back thermostats and close blinds when they are not home. Many appliances and HVAC units were replaced with higher-efficiency models. Some parking garage ventilation fans are controlled by carbon monoxide sensors. Peloton reports forming a sustainability committee.</p>
Kennedy Associates	The portfolio currently includes one hotel, one office property, and one raw land investment. The hotel installed monitors on 6 of the 8 domestic hot water boilers with the goal of reducing natural gas consumption.
Klein Financial	Where applicable, the three multifamily communities in the portfolio installed energy-efficient lighting and programmable thermostats, upgraded appliances and HVAC to energy-efficient models, educated residents on energy conservation, and reduced water heater temperature set points.
Manager	What impact have these steps had on energy consumption?
Buchanan	A group of multifamily communities reported lowering their common area and vacant unit electricity consumption. An industrial property reported anticipated savings of 30% from energy efficiency improvements.
BUILD	Reduced energy consumption is expected at both rental and development projects. At Kirker Creek, 2009 natural gas expenses were \$2500 lower than 2008.
CalSmart (RREEF)	Research Center’s 2009 warehouse lighting retrofit was part of a utility-sponsored rebate program; in addition to reducing the property’s energy use, it also reduced the demand charges on its utility bills. Summit IV has maintained its ENERGY STAR rating of 78. China Basin reported lower energy consumption in 2009 compared with 2008.
CityView America / Pacific City Home	Measures have resulted in operational cost savings for the homeowners. Many homes are expected to use 20-50% less energy for heating and cooling compared to homes built to code.
Kennedy Associates	The hotel has seen a reduction in monthly gas consumption in the amount of 6.8%, 17%, and 13.6% in October, November, and December of 2009 due mainly to the new boiler monitors.

Manager	In 2009, what steps have you taken to reduce water consumption in your properties?
Buchanan	<p>Property teams reported installing low-flow plumbing fixtures and low-water landscaping, as well as turning sprinklers off during freezing conditions and rainy weather. One office building installed 0.5 gpm aerators (replacing 2.0 gpm devices) on 170 sinks as part of the LEED certification process.</p> <p>Multifamily communities reported educating residents to report leaks and running toilets immediately; allocating water costs to residents through RUBS, encouraging residents to conserve water and report leaks; and conducting preventive maintenance on irrigation systems.</p> <p>At a group of industrial properties, landscape watering restrictions already mandate low water consumption for irrigation. Staff members monitor the properties daily for broken or leaking irrigation lines. Chemical/water bleed controllers were replaced on four cooling towers, reducing water consumption and minimizing the need for water replacement cycles.</p>
BUILD	Property teams distributed flyers to inform residents about water conservation, installed low-flush toilets and showerheads in all apartments, installed energy- and water-efficient washer/dryer stacks that qualify for energy and water utility rebates, reduced landscape irrigation schedules, eliminated some turf grasses, installed weather-sensing irrigation heads and controllers, used drought-resistant native plants, mulched around plantings to improve the soil's water retention, and replaced leaking pipes.
CalSmart (RREEF)	Low-flow fixtures continued to be installed in new developments and, where practical, in existing properties. Research Center uses non-potable municipal water for landscape irrigation; toilets, urinals, and sinks all use low-flow devices. At Summit IV, 0.5 gpm aerators have been added to all lavatory faucets, and the drought-tolerant landscaping continues to be watered only three days per week. China Basin continued to make operational improvements such as better regulation of cooling tower evaporation.
CityView America / Pacific City Home	Individual properties reported continuing the use of methods and technologies utilized in previous years, such as the following: low-flow showerheads, aerators, and toilets; waterless urinals in common area bathrooms; ENERGY STAR dishwashers; mulch in landscaping to encourage moisture retention; reduction of landscape watering in alignment with seasonal needs, weather, and plants' water requirements; sweeping compounds to clean garages (rather than pressure washing with water); a rainwater harvesting system to provide irrigation water; synthetic lawn material (which requires no watering); drought-tolerant native plants; reduced turf areas; xeriscaping; limiting landscape watering times to early morning hours; drip irrigation and low-flow sprinklers; reducing the number of months that the irrigation system is used; only irrigating the clubhouse and model homes; maintenance of landscaping on a community level, thus mitigating any over-watering that may occur by individual residents; close monitoring of water bills to ensure no leaks are present; and monthly leak checks.
Kennedy Associates	The hotel is in the process of installing low-flow aerators and showerheads in the guestroom bathrooms, with 25% of the replacements complete to date. The hotel also installed low-flow irrigation heads and kitchen sink heads. Limited landscaping at the office building allows for low water consumption.
Klein Financial	Various property teams installed low-flow fixtures upon rehabilitation of units and implemented a system to charge residents for actual water consumption (creating an incentive for residents to conserve water). Management routinely checks irrigation systems for leaks and checks sprinkler head configuration for maximum efficiency.
Manager	What impact have these steps had on water consumption?
Buchanan	Property teams reported various water conservation results, including an industrial property with anticipated savings of 25%.
BUILD	Residents at rental properties are conserving water based on the tenant education campaign. At Citra, low-flush toilets continue to reduce water costs by approximately 20% each year. The team at Kirker Creek is putting in place a system to track water consumption.
CalSmart (RREEF)	At Summit IV, a minimum 10% water savings is anticipated to occur due to lavatory aerators, and with reduced landscape watering, water savings should reach the 20% range. At China Basin, year-over-year water consumption has remained relatively consistent despite higher occupancy and new water-intensive lab uses.

CityView America / Pacific City Home	Property teams reported decreases in water consumption of occupied buildings, though these are difficult to track once properties are turned over to individual homeowners and owner associations. At Peloton, the sustainability committee is now more pro-actively addressing water issues and identifying opportunities for conservation.
Kennedy Associates	Water consumption continues to trend downward due to operational changes and the installation of low-flow toilets, showerheads, and aerators. Consumption is expected to drop below 2008 levels in 2010.
Manager	In 2009, what steps have you taken to improve waste management in your properties?
Buchanan	<p>Property teams continued their recycling programs, tenant education initiatives (e.g., monthly newsletters containing information about recycling), helpful bi-lingual recycling signage, and lamp/ballast collection. Trash hauls at many multifamily communities were kept to a minimum by having waste removal on an as-needed basis rather than a regular pick-up schedule. Multifamily management teams in Texas are currently working with the cities of Arlington and Grand Prairie to help extend the cities' recycling programs to multifamily communities. A retail property posts recycling results to its Web site in terms of metrics such as trees, landfill space, oil, and water saved.</p> <p>Teams at a group of industrial properties coordinated with tenants and janitorial vendors to implement a recycling program. They have also encouraged contractors performing tenant improvements to recycle debris and reuse existing materials; the glass and doors removed from a conference room were recently reused in a build out.</p>
BUILD	Property management teams at rental properties distributed recycling bins to residents and throughout common areas, implemented a lamp/ballast recycling program, and educated tenants on how to reduce junk mail. In leasing offices, materials are reused or recycled whenever possible (e.g., file folders, toner cartridges, office paper, envelopes, and appliances). Development projects used wood-alternative flooring, reused existing concrete as road base, and separated and recycled construction debris.
CalSmart (RREEF)	China Basin initiated a composting program for wet waste; initially rolled out to only the largest tenants, the program has now been implemented campus-wide, accompanied by new receptacles, tenant training seminars, and training materials for distribution. Citigate Apartments initiated a recycling program for residents' plastic, glass, paper, and aluminum waste. Summit IV maintained its contracts for waste separation and recycling services.
CityView America / Pacific City Home	Property teams reported continuing previous years' efforts, such as the following: providing separate recycling containers and chutes for resident use; using compactors to reduce trash hauls; separating and recycling construction waste (some of which is reused on site, including wood and sheetrock); minimizing construction waste by reusing portions of an original façade, prefabricating framing in a shop, diverting concrete debris to another jobsite to be used as roadway base, and other methods; reusing office paper as scratch paper; donating old cabinets to a nonprofit for reuse; providing biodegradable pet waste bags to residents; and posting signage, holding meetings, and providing tenants with literature about recycling, trash, and composting.
Kennedy Associates	At the hotel, the same measures put in place in 2008 continue to be utilized; the cardboard recycling program is again generating revenue through payments for recycled cardboard (as opposed to a hauling fee). At the office building, the tenant is encouraged to recycle and manage waste proactively.
Manager	What impact have these steps had on waste volumes?
Buchanan	An industrial property reported that educating tenants and unit owners has increased the recycling volume by approximately 50%. An office property reported recycling 42.5 tons of paper in 2009. In many other cases, the results are difficult to quantify since waste haulers often bill based on a flat rate as opposed to weight of waste removed.
BUILD	At rental properties, approximately 30% of waste is recyclable. At development projects, up to 50% of construction waste is diverted from landfills.

CalSmart (RREEF)	At the end of 2008, China Basin acquired new waste management equipment; in its first full year of operation, they nearly doubled the volume of recycled materials in 2009 vs. 2008. Because actual weight and volume measurements dictate monthly recycling credits, there was a year-over-year trash disposal expense reduction of approximately 50%.
CityView America / Pacific City Home	Several properties reported noticing a decrease in the amount of trash removed. There is consistent resident participation in recycling efforts. This often results in a reduction in monthly waste removal costs.
Kennedy Associates	Overall garbage weight was lower than 2008 levels.
Manager	Are you aware of any steps that your tenants have taken to improve their energy/water efficiency and reduce their waste stream?
Buchanan	Some retail tenants have eliminated paper cups, using reusable coffee mugs and water bottles instead; some also have “green teams” that audit trash and recycling containers. At one office building, the tenant benchmarked and received an ENERGY STAR rating of 92. They also installed flow restrictors on plumbing fixtures, installed energy efficient lighting, and implemented a recycling program. Another office tenant significantly reduced its overtime HVAC schedule. Finally, one tenant (occupying an approximately 115,000 SF building) has applied for LEED certification.
BUILD	Billing back utilities to residents has a positive impact on their incentive to reduce consumption and increase efficiency. Tenants are provided with recycling bins for plastics and yard waste, and are responding to the tenant education campaign by conserving more water and electricity and reducing waste.
CalSmart (RREEF)	At Summit IV, tenants have a filtered drinking water system to reduce the use of bottled water. As part of the lease, tenants are not allowed to utilize personal heaters. China Basin tenants have generally supported management’s green initiatives through willing participation in efforts to reduce energy consumption and the waste stream. In 2009, a 21,000 SF tenant obtained LEED CI certification of their space, and other tenants expressed interest in ways to improve energy efficiency and reduce their waste stream.
CityView America / Pacific City Home	Homeowners’ associations, management, and sustainability committees at certain properties have taken steps to improve sustainability, such as the following: distributing information electronically whenever possible rather than mailing hard copies; forming a maintenance committee to monitor equipment and immediately report issues; reducing HVAC at unsold units; and encouraging alternative transportation use, energy saving ideas, and community garden options among other residents. Individual homeowners have taken steps such as the following: replacing landscaping with decorative rocks, which reduces watering needs; using the communities’ recycling programs, especially during move-ins; taking their recycling to nearby centers; unplugging unused appliances and lamps; installing window treatments and utilizing fans to minimize the need for HVAC; raising thermostats when they are not at home; reporting water leaks promptly; and selecting dual-flush toilets.
Kennedy Associates	The office building tenant has worked to control its energy use and waste through reducing lighting levels, adjusting temperature settings to reduce HVAC demand, and ongoing recycling efforts. Three of the building’s chillers have been overhauled to increase efficiency; the three remaining chillers will be overhauled in the next three years. Kennedy has extended its efforts to encourage the tenant to conserve energy and water wherever possible.
Manager	Does your company have any portfolio-wide environmental initiatives, programs, or policies in place?
Buchanan	Individual property teams within the portfolio reported various initiatives: At a group of multifamily communities, management actively recycles, reduces paper and energy consumption, encourages associates to follow environmentally-friendly practices, and participates in Goodwill Industries’ e-waste initiative. Other teams have targets for LEED certified developments and ENERGY STAR labels.

BUILD	BUILD's mission is to invest in land or properties that have high density potential and are located near public transit nodes. This strategy reduces sprawl, commute distance, and gas consumption, and uses existing infrastructure. At the beginning of the development process, BUILD coordinates with development partners to encourage environmentally-sound practices. BUILD has adopted the practices of a green development manual, and by sharing their practices with their partners, partners are encouraged to adopt similar standards and green activities.
CalSmart (RREEF)	<p>As a member of Deutsche Bank Group (DB), RREEF is committed to the corporate targets set out by DB to achieve the company's overall Environmental and Social Governance ("ESG") goals. Among other items, DB is committed to reducing its CO2 emissions by 20% annually, so that its global business activities are climate neutral by 2013. This reduction program is based on increasing energy efficiency and reducing consumption, realigning buildings and IT services to suit an infrastructure with lower CO2 emissions, using renewable energy, and compensating for CO2 emissions through certificates.</p> <p>In 2009, RREEF developed a LEED EB: O&M screening initiative and a re-lamping/rebate initiative in partnership with utility suppliers. Other specific examples of how RREEF has recently contributed to DB's ESG objectives include the following: a stringent policy on reducing air travel; recycling and re-use program for office furniture; take-back programs with suppliers, initially focusing on office, computer, and telephone equipment; expansion of a waste reduction program for food and beverage packaging and containers; expansion of toner recycling; use of locally-sourced, seasonal produce for staff restaurants; active participation in ENERGY STAR; membership in the USGBC; implementation of the "Green Matters" tenant communication program; and founding membership in the Greenprint Foundation. During the first quarter 2010, RREEF established a Global Sustainability Council with executive-level leadership.</p>
CityView America / Pacific City Home	CityView generally discusses green building measures with builder partners, who typically have their own programs in place.
Kennedy Associates	Through its commitment to Responsible Property Investing, Kennedy pursues sustainable development and high-performance property operations across its real estate portfolio. Kennedy's emphasis on high-performance property operations focuses on increased energy and water efficiency, waste reduction and recycling, and improving indoor environmental quality. As a 2009 and 2010 ENERGY STAR Partner of the Year, Kennedy benchmarks all eligible office and industrial assets in ENERGY STAR's Portfolio Manager and has received ENERGY STAR labels on buildings representing over \$1.5 billion in value. Kennedy targets LEED Silver certification or higher for all new development and redevelopment, and has over \$1 billion in LEED certified assets and assets seeking certification. Additionally, Kennedy expects LEED EB: O&M certification for almost 6 million SF of office buildings representing more than \$1 billion in value by mid-2010 through its pre-certified LEED EB: O&M portfolio program, and plans to pursue EB O&M certification for additional eligible buildings. Through its LEED EB: O&M program, Kennedy has conducted energy audits and restroom retrofits, and has created sustainable policies (e.g., waste management, water efficiency, energy, purchasing, green cleaning, and indoor air quality), plans, and procedures that are being implemented across its operating portfolio. Kennedy continues to produce and procure renewable energy at various assets; uses a green office lease; and will roll out its Sustainable Tenant Improvement Guide (developed in partnership with the BetterBricks, the commercial real estate arm of the Northwest Energy Efficiency Alliance) in 2010.
Klein Financial	Klein Financial is currently reviewing a comprehensive proposal to create solar energy at the portfolio's three existing properties.
Manager	What steps do you plan on taking for the coming calendar year to improve energy efficiency, water efficiency, and waste management in your properties?
Buchanan	Property teams plan to identify new ideas for improving sustainability, perform lighting retrofits for individual projects as needed, replace plants/shrubs as needed with drought resistant plants, encourage tenants to participate in recycling and energy efficiency programs, and investigate options for irrigation clocks and sprinkler heads. One property will put garage lighting on the EMS so lighting hours can be reduced and more closely controlled; another will replace all toilets with low-flush models.

BUILD	<p>Based on the organization's new green development manual, BUILD plans to adopt best practices to improve environmental performance at rental and development projects. They also plan to encourage improved recycling at all properties, and to ask partners at rental properties to outline specific conservation measures to improve environmental consciousness and reduce costs.</p> <p>Property-specific goals at Kirker Creek include better tracking of the effectiveness of green strategies put in place in 2009, and further research into new products and practices for 2010. Citra is planning further improvements to lighting and continued research on solar energy as a potential resource.</p>
CalSmart (RREEF)	<p>China Basin has budgeted for lighting control projects in 2010 and is in the process of completing a utility-sponsored recommissioning evaluation, which will result in the identification of other energy-saving measures for consideration.</p> <p>If management of Summit Phase 4, 15 and 25 Enterprise chooses to pursue LEED EB: O&M, a solid waste management audit is anticipated. This audit would track the property's entire ongoing waste stream and identify opportunities for increased recycling and waste diversion. Summit IV will also explore retrofitting restrooms with low-flush fixtures.</p>
Kennedy Associates	<p>A number of renovations to the office building are planned for 2010 and 2011 (after the current tenant lease expires in September 2010) and Kennedy will seek LEED Silver certification for the building. Some of the planned improvements include the following: updated energy management systems and sensor controls, common area (interior and exterior) and tenant space lighting upgrades, updated elevator controls, low-flow restroom fixtures and irrigation systems, and modifications to the interior curtain wall configuration to allow more natural light. A new, comprehensive recycling program will be implemented. Specific emphasis will be placed on recycling and diverting construction materials. Sustainable materials will be used where possible.</p> <p>Land development plans include various energy efficiency measures but also have a strong emphasis on other sustainable features including the following: preserving open space, providing recreation areas and neighborhood centers, respecting and embracing local culture, developing pedestrian-oriented facilities, and managing construction waste. Kennedy has completed various site studies relating to surface and subsurface water flows in advance of future development for environmental impact assessments.</p> <p>In addition to the asset-specific improvements, Kennedy will expand its ENERGY STAR benchmarking program into new property types, including medical office and multifamily. Kennedy plans to engage consultants to conduct detailed energy and lighting audits, site visits, and property team trainings for these assets. The resulting recommendations will be used to budget for select energy and water efficiency efforts.</p> <p>Kennedy also expects to pilot a comprehensive sustainable project management, monitoring, and key performance indicator dashboard for select assets. The dashboard will be used by property managers and engineers as well as Kennedy asset managers to reduce energy, water, waste, and CO2. Additionally, as Kennedy expands its LEED EB: O&M certification program, ASHRAE energy audits, waste-stream audits, and restroom retrofits will be completed. Finally, Kennedy expects to investigate and utilize new technologies, which should result in additional energy savings.</p>
Klein Financial	The largest property in the portfolio is receiving proposals for a water-efficient drip irrigation system.
Manager	Do you have any additional comments, suggestions, concerns, or questions about the CalPERS environmental initiative?
Buchanan	<p>In addition to energy, water, and waste reduction efforts, 440 S. Church has implemented a green cleaning program.</p> <p>Buchanan would appreciate any helpful information on successful energy-saving measures that CalPERS can provide.</p>
BUILD	The MacArthur Transit Village project has received a stage-one (pre-development) Gold level of certification under the LEED for Neighborhood Development Pilot rating system. As the project moves into final development plans and construction, they will continue to update and implement the LEED goals.

CalSmart (RREEF)	<p>Included with RREEF's survey response (in separate files) are several RREEF Research studies and the 2010 DB Climate Change paper.</p> <p>On a property-specific basis, China Basin management is focused on making environmentally conscious operational decisions. When making purchasing decisions, they actively seek greener alternatives; for example, the cleaning contractor now uses green cleaning products almost exclusively. In addition, they are continuing to monitor renewable energy and green purchasing possibilities.</p>
CityView America / Pacific City Home	<p>Other sustainable measures have included the following: offering optional "green" cabinets and flooring to prospective residents, and providing a community shuttle to public transportation.</p>

Glossary of Terms and Acronyms

Aerator	Apparatus affixed to a faucet to reduce water flow while still providing the desired water pressure, by mixing water with air
Air handling unit	Equipment that includes a fan or blower, heating and/or cooling coils, regulator controls, condensate drain pans, and air filters
Ballast	Electrical device for starting and regulating fluorescent and discharge lamps
Bioswale	A technology that uses plants and soil and/or compost to retain and cleanse runoff from a site, roadway, or other source
Blackwater	Water that contains animal, human, or food waste
Btu	British thermal unit (unit of measure for energy, commonly used to measure natural gas; represents the amount of energy required to raise one pound of water one degree Fahrenheit)
C&D	Construction and demolition
C&D waste	Waste building materials, dredging materials, tree stumps, and rubble resulting from construction, remodeling, repair, and demolition
CBECS	Commercial Buildings Energy Consumption Survey (national sample survey, performed by the Department of Energy, that collects information on the stock of U.S. commercial buildings, their energy-related building characteristics, and their energy consumption and expenditures; results are the basis for the ENERGY STAR national energy performance rating)
CCF	Hundred cubic feet
cf	Cubic feet
CFC	Chlorofluorocarbon (a family of inert, nontoxic, and easily liquefied chemicals used in refrigeration, air conditioning, packaging, insulation, or as solvents and aerosol propellants; because CFCs are not destroyed in the lower atmosphere they drift into the upper atmosphere where their chlorine components destroy ozone)
CFL	Compact fluorescent light (small lamps used as more efficient alternatives to incandescent lighting)
Chiller	A device that generates a cold liquid that is circulated through an air handling unit's cooling coil to cool the air supplied to the building
CO	Carbon monoxide (colorless, odorless, poisonous gas produced by incomplete fossil fuel combustion)
Cogeneration	Process in which waste energy is used to produce heat or electricity
Cooling tower	Device that dissipates the heat from water-cooled systems by spraying the water through streams of rapidly moving air; can be substantial water users, and provide an opportunity for water conservation
Demand shedding/ load shedding	Cutting off electric current on certain lines when demand becomes greater than supply
Drip irrigation	Low pressure irrigation system in which nozzles are placed at the base of plants and water is applied very slowly
Economizer	Mechanical device used to reduce energy consumption by recycling energy produced within a system or leveraging temperature differences to achieve efficiencies

EMS	Energy Management System (a control system capable of monitoring environmental and system loads and adjusting HVAC operations accordingly, in order to conserve energy while maintaining comfort)
Energy modeling	Process to determine the energy use of a building based on software analysis
Water-side economizer	Device that uses cold air to cool an exterior water tower; the chilled water from the tower is then used in air conditioners instead of mechanically-chilled water
GBI	Green Building Initiative (manages Green Globes, a voluntary green building assessment and certification program)
gpf	Gallons per flush
Graywater	Domestic wastewater composed of wash water from kitchen, bathroom, and laundry sinks; tubs/showers; and washers
Heat pump	An electric device with both heating and cooling capabilities; extracts heat from one medium at a lower temperature (the heat source) and transfers it to another at a higher temperature (the heat sink), thereby cooling the first and warming the second
Heating/cooling degree days	A rough measure used to estimate the amount of heating or cooling required in a given area; is defined as the difference between the mean daily temperature and 65 degrees Fahrenheit
HVAC	Heating, ventilation, and air conditioning
IAQ	Indoor air quality
Infill	Use of vacant land and property within a built-up area for further construction or development, thus avoiding the environmental impacts of urban sprawl
kW	Kilowatt
kWh	Kilowatt hour
LED	Light emitting diode (device that emits visible light when an electric current passes through it; one of the most energy-efficient and long-lasting forms of lighting available)
LEED	Leadership in Energy and Environmental Design (voluntary USGBC green building certification program)
LEED CI	LEED for Commercial Interiors
LEED EB: O&M	LEED for Existing Buildings: Operations & Maintenance
LEED NC	LEED for New Construction
Low-E	Low-emissivity (when used to describe windows or glass: technology that lowers the amount of energy loss through windows by inhibiting the transmission of radiant heat while still allowing sufficient light to pass through)
NLA	Net leasable area
NNN lease	Triple-net lease (a lease in which the lessee pays rent to the lessor, as well as all taxes, insurance, and maintenance expenses that arise from the use of the property)
NRA	Net rentable area

OSB	Oriented strand board (high strength, structural wood panel formed by binding wood strands with resin in opposing orientations; OSB is environmentally beneficial in that it uses small dimension and waste wood for its fiber)
Photocell	A device that measures the amount of incident light present in a space
Photovoltaics	Device capable of converting incident light (sunlight) directly into electricity
PIU	Process Interface Unit (used to interface two control system components together, such as fire alarm and building automation, or to interface equipment from two different manufacturers)
Point of use water heater	Serving an individual water use
Potable water	Water of a quality suitable for drinking
Retrocommissioning/ recommissioning	Commissioning is the process of ensuring installed building systems function as specified; retrocommissioning or recommissioning take place in existing, operational buildings as opposed to new construction
R-value (e.g., R-19)	Measure of the capacity of a material, such as insulation, to impede heat flow, with increasing values indicating a greater capacity
RUBS	Resident/Ratio Utility Billing System (system that uses an allocation formula to divide a property's water bill among its residents based on a ratio of floor space, number of occupants, or another quantitative measure)
SEER	Seasonal Energy Efficiency Ratio (rating that measures the cooling efficiency of a heat pump or air conditioner; the higher the number, the more efficient the unit)
SF	Square foot/feet
T-5 and T-8	Type of fluorescent lighting that offers greater energy efficiency than the variety in place in most commercial buildings today (T-12)
TPO	Thermoplastic polyolefin (used to describe roofing membranes that provide exceptional resistance to ultraviolet, ozone, and chemical exposure)
USGBC	U.S. Green Building Council
Variable air volume	On a heating and cooling system, a variable air volume system maintains air flow at a constant temperature, but supplies varying quantities of conditioned air in different parts of the building according to the heating and cooling needs
VFD	Variable frequency drive (system for controlling the speed of an electric motor by controlling the frequency of the electrical power supplied to the motor)
VOC	Volatile Organic Compound (organic substance capable of entering the gas phase from either a liquid or solid form; typically emitted from many building materials such as paint, carpet, adhesives, and furniture and is harmful to humans)
Water-source heat pump	Heat pump that uses wells or heat exchangers to transfer heat from water to the inside of a building
Xeriscape	Landscaping designed specifically for areas that are susceptible to drought, or for properties where water conservation is practiced